

1            **ABSTRACT**

2            A 3-D fabric preform for composites including a three-dimensional engineered  
3            fiber preform formed by intersecting yarn system components; and at least one system,  
4            device, and/or network integrated with the preform for providing a predetermined  
5            function, wherein the at least one system, device, and/or network is introduced prior to  
6            formation of a composite structure including the preform, thereby providing a 3-D fabric  
7            preform for composites. Also, a method for forming the 3-D fabric preform for  
8            composites including a three-dimensional engineered fiber preform formed by  
9            intersecting yarn system components; and at least one system, device, and/or network  
10            integrated with the preform for providing a predetermined function, wherein the at least  
11            one system, device, and/or network is introduced prior to formation of a composite  
12            structure including the preform, thereby providing a 3-D fabric preform for composites.

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